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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,781	06/15/2001	Tsuyoshi Isozaki	IKE-C098	8970
30132	590 08/20/2003			
GEORGE A. LOUD 3137 MOUNT VERNON AVENUE ALEXANDRIA, VA 22305			EXAMINER	
			THEXTON, MATTHEW	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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•	Application No.	Applicant(s)				
	09/880,781	ISOZAKI ET AL.				
Office Action Summary	Examiner	Art Unit				
	Matthew A. Thexton	1714				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute  - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be till y within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	mely filed ys will be considered timely. In the mailing date of this communication. ED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
<del></del>	is action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims						
4)⊠ Claim(s) <u>1-6</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdray	wn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-6</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examine	r.					
10)☐ The drawing(s) filed on is/are: a)☐ accept	oted or b)⊡ objected to by the Exa	miner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120	•					
13)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)⊠ All b)□ Some * c)□ None of:						
1. Certified copies of the priority documents	s have been received.					
2. Certified copies of the priority documents	2. Certified copies of the priority documents have been received in Application No. 09/317,170.					
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received.						
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)						
1) X Notice of References Cited (PTO-892)	A)   Interview Summer	v (PTO 413) Paper No(e)				
Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2	5) Notice of Informal	y (PTO-413) Paper No(s) Patent Application (PTO-152)				

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### **DETAILED ACTION**

## Information Disclosure Statement

The information disclosure statement (IDS) submitted on 15 June 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner. Duplicate listings have been lined through.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. (US 4051194).

Claim 1 requires copolymerizing 5-90 weight percent of glycidyl or methylglycidyl group containing unsaturated compounds with 95-10 weight percent ethylenically unsaturated monomer in methanol, and spray drying to obtain powdery resin. Claim 2 requires the methanol be present in the resin solution at 5-99.99 weight percent. Claim 3 depends from claim 1 and requires the orixane containing monomers be selected from glycidyl acrylate and glycidyl methacrylate and methylglycidyl acrylate and methylglycidyl methacrylate. Claim 4 depends from claim 1 and requires the ethylenically unsaturated monomer be selected from a list which includes styrene.

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The reference discloses copolymerizing 10-40 weight percent beta-methylglycidyl(meth)acrylate optionally with glycidyl(meth)acrylate with 20-80 weight percent styrene in solution polymerization in an organic solvent which dissolves the resulting polymer, such as methanol (column 3, lines 27-36), and spray drying to obtain the solid polymer (column 3, lines 37-39). This disclosure broadly encompasses claims 1-4. It is well established by the courts that where the general conditions of the claims are disclosed in the prior art, it is not patentable to discover optimum or workable ranges (e.g., concentrations, temperature, pH, etc.) by routine experimentation, absent evidence of unexpected results (<u>In re Aller, et al.</u>, 105 USPQ 223 (CCPA 1955); <u>In re Boesch</u>, 205 USPQ (CCPA 1980)).

Claim 5 depends from claim 1 and requires adding one or more of curing agents, pigments, and additives before spray drying. The reference discloses adding pigments and other additives by known methods such as obtaining a uniform mixing of the entire paint powder with a solvent and then spray drying (column 3, line 65, to column 4 line 14). This suggestion appears to encompass claim 5.

Claim 6 depends from claim 1 and requires that a methanol solution or dispersion of one or more of curing agents, pigments, and additives be mixed with the resin solution before spray drying using a continuous mixer. The expedient of predissolving or dispersing additives to be mixed with a solution is notoriously well known. The use of a continuous mixer is notoriously well known. Such choices would be immediately obvious to one of ordinary skill in the art given the suggestions of the reference at column 3, line 65, to column 4 line 14.

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## Citation of Pertinent Prior Art

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Victorius (US 4027066) discloses the well known techniques of admixing the desired pigments, crosslinkers, additives to the solution polymerized resin solution and then spray drying to the desired particle size (Column 5, lines 46-59).

#### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Thexton whose telephone number is 703-305-5085. The examiner can normally be reached on Monday-Friday, 8:30 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan S Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

> Matthew A. Thexton Primary Examiner

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